

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1-48. (Canceled)
49. (Previously presented) A recombinant protein derived from a PBP2x protein of *Streptococcus pneumoniae*, which recombinant protein comprises concatenated peptide fragments of said PBP2x protein, wherein the sequence of each one of said peptide fragments, in the orientation from the N-terminus to the C-terminus of the recombinant protein, is situated, respectively from positions 74 to 90, 186 to 199, 218 to 228 and 257 to 750 of said PBP2x protein amino acid sequence and wherein each one of said peptide fragments is preceded by a linking peptide of 1 to 7 amino acids.
50. (Previously presented) The recombinant protein of claim 49, wherein the linking peptide comprises 1 to 7 amino acid residue(s) of said PBP2x protein of *Streptococcus pneumoniae* which are selected in one or both groups of residues consisting respectively of:
  - a) the residues from positions -1 to -7, relative to the residues at positions 74, 186, 218, and 257 of said PBP2x protein amino acid sequence, and
  - b) the residues from positions +1 to +7, relative to the residues at positions 90, 199 and 228 of said PBP2x protein amino acid sequence.
51. (Previously presented) The recombinant protein of claim 49, wherein the linking fragment comprises alanine (A), serine (S), glycine (G) or threonine (T) residue(s) or a combination thereof.
52. (Previously presented) The recombinant protein of claim 49, which is derived from a  $\beta$ -lactam-resistant strain of *S. pneumoniae*.
53. (Previously presented) The recombinant protein of claim 49, which has the sequence of SEQ ID No. 1
54. (Previously presented) A peptide fragment of at least 7 amino acids of the amino-PBP2x protein of claim 49, which peptide fragment includes at least one residue comprising those located at positions 74, 90, 186, 199, 218, 228, and 257 as defined in claim 50.
55. (Previously presented) A mutant of the recombinant protein of claim 49, which comprises the substitution of at least one methionine residue of said recombinant protein sequence with a selenomethionine residue.

56. (Previously presented) A protein complex comprising the recombinant protein of claim 49, which is associated with a ligand.

57. (Previously presented) A protein crystal which is obtained from the recombinant protein of claim 49.

58. (Previously presented) The recombinant protein of claim 49, wherein said PBP2x protein which is encoded by the *pbpX* gene of a strain of *Streptococcus pneumoniae*, has a sequence which is at least 50% identical or at least 85% similar with the sequence SEQ ID No.18.

59. (Previously presented) The recombinant protein of claim 58, wherein said PBP2x protein has the sequence SEQ ID No.18 which is that of the strain R6 of *Streptococcus pneumoniae*.

60. (Previously presented) A screening kit, which comprises at least one protein of claim 49 or one peptide of claim 54.